

Please replace the second full paragraph on page 8 with the following new paragraph.

B²
It is appreciated that circuit 25 can also generate current waveforms other than pulses and that circuit 26 can detect resultant signals in a manner similar to that described hereabove or in any other manner known in the art. According to a refinement of the apparatus disclosed herein, there is placed an optical filter 27, which selectively transmits the band of wavelengths emitted by LED 23, either in front of fiber 22 within corresponding hole 15, or between fiber 22 and PD 24; this filter 27 is further instrumental in distinguishing between reflected light and ambient light.

Please replace the second full paragraph of page 9, including subparagraph (a) with the following new paragraph, including subparagraph (a).

B³
According to another alternative configuration of the present invention, end face 12 of female connector 10 is coated with a fluorescent or phosphorescent material, which is not necessarily specularly reflective. LED 23 is of a type that emits wavelengths short enough to stimulate fluorescence or phosphorescence in the material. There is placed an optical filter 27 either in front of fiber 22 within corresponding hole 15, or between fiber 22 and PD 24. The optical filter 27 selectively transmits the strongest wavelengths emitted by the fluorescent or phosphorescent material, while substantially attenuating wavelengths emitted by LED 23. The rest of the apparatus is as described hereabove. Although this configuration involves generally higher costs for treating the end of the connector than does the first configuration, it has two advantages:

- (a) There is a high degree of discrimination between light reflected from a proper connector and light reflected from any other connector, since the optical filter 27 can be made to greatly attenuate the wavelength band emitted by LED 23 (which is the only band present in light reflected by improper connectors).

Please replace the paragraph spanning pages 9 and 10 with the following new paragraph.

B4
The second advantage can be realized, for example, by choosing for a particular instrument an optical filter 27 such that transmits one or more wavelengths at which the corresponding type of material emits strongly or strongest, while substantially attenuating those wavelengths at which all other types strongly emit. By properly adjusting the threshold level, this would result in an enabling signal being output by the comparator only when a connector of the corresponding class is properly connected to the instrument.

A marked-up copy of these changes is attached.

In the Claims:

Please amend claim 112 as indicated on the marked up copy. A clean copy of all pending claims is also enclosed.

In the Drawings:

Kindly amend Figures 1, 3 and 4 according to the attached drawings, wherein the requested changes are marked in red ink.

REMARKS

Applicants have carefully studied the outstanding Office Action. The present amendment is intended to be fully responsive to all points of rejection raised by the Examiner, and is believed to place the application in condition for allowance. Favorable reconsideration and allowance of the application are respectfully requested.

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